Lipomas are the most common soft tissue tumor in the body. These benign and well-differentiated tumors are thought to originate at any site that contains adipose tissue. They are generally found in the proximal extremities and the subcutaneous tissues of the upper half of the body. Intravascular lipomas are a very rare phenomenon in most locations. Lipomas arising from within the vessel wall have been described in the inferior vena cava, where they are an incidental finding in as many as 0.35% of abdominal CT scans. A few cases of intravascular lipomas arising in the superior vena cava and of those arising in the femoral veins have also been reported. To our knowledge, this is the first time that an intravascular lipoma arising with the internal jugular vein has been reported.

**ABSTRACT**

The workup of patients suspected of presenting with these tumors invariably includes CT scans with contrast and subsequent MRI since these are the best modalities for diagnosing soft tissue tumors. Imaging studies can also help determine the site of origin of these tumors and their relationship to adjacent structures—thus aiding in surgical planning. Differential diagnoses for such cases should include leiomyomas, leiomyosarcomas and angiosarcomas. Malignant tumors, however, are more commonly found in the veins of the lower extremities.

**PRESENTATION OF CASE**

intraoperative photograph of the left internal jugular vein (IJV) and was extending intraluminally into the left subclavian vein (SCV). A MRI of the neck was performed which confirmed the intravascular and likely benign nature of this tumor. Given the progression in size and the patient’s history of pulmonary emboli, the patient was given the option of surgical resection of this tumor.

Intravascular lipomas are quite rare. There have been very few cases reported in literature, and all of these have been intraluminal on the left side of the body and in the femoral veins. To our knowledge, no case has ever been described of an intravascular lipoma arising on the right side of the body. Here, we present the case of a 65-year-old man who was discovered to have an intravascular lipoma arising from the left internal jugular vein with particular emphasis on the radiologic and pathologic findings.

**CASE REPORT**

A 63-year-old man with a history of pulmonary emboli was evaluated for leg pain. CT of the neck revealed an intraluminal soft tissue mass, which at CT and MRI appeared hypervascular and was suspected of being a liposarcoma. The patient was referred to the Karmanos Cancer Institute for further evaluation and management. A review of the CT scan revealed a fatty soft tissue mass in the left neck which seemed to arise from and partially occlude the left internal jugular vein (UV) and was extending intraluminally into the left subclavian vein (SCV). A MRI of the neck was performed which confirmed the intravascular and likely benign nature of this tumor. Given the progression in size and the patient’s history of pulmonary emboli, the patient was given the option of surgical resection of this tumor.

Intravascular lipomas are quite rare. There have been very few cases reported in literature, and all of these have been intraluminal on the left side of the body and in the femoral veins. To our knowledge, no case has ever been described of an intravascular lipoma arising on the right side of the body. Here, we present the case of a 65-year-old man who was discovered to have an intravascular lipoma arising from the left internal jugular vein with particular emphasis on the radiologic and pathologic findings.

**DISCUSSION**

Lipomas are the most common soft tissue tumor in the body. These benign and well-differentiated tumors are thought to originate at any site that contains adipose tissue. They are generally found in the proximal extremities and the subcutaneous tissues of the upper half of the body. Intravascular lipomas are very rare in most locations. Lipomas arising from within the vessel wall have been described in the inferior vena cava, where they are an incidental finding in as many as 0.35% of abdominal CT scans. A few cases of intravascular lipomas arising in the superior vena cava and of those arising in the femoral veins have also been reported. To our knowledge, this is the first time that an intravascular lipoma arising with the internal jugular vein has been reported.

**REFERENCES**


**CASE REPORT**

**Figure 1.** Contrast enhanced coronal CT image of the neck revealing a fatty soft tissue mass (asterisk) in the lower neck, which extends intraluminally into the left internal jugular vein (arrow) and inferriorly into the left subclavian vein.

**Figure 2.** Contrast enhanced coronal CT image of the neck with left sided contrast injection demonstrating fatty soft tissue mass in the left lower neck (asterisk) and meniscus of contrast outlining the intravascular component of the mass within the internal jugular vein.

**Figure 3.** T1-weighted left coronal image of the neck: the signal intensity of the fatty soft tissue mass (arrow) extending into the left lower neck (asterisk). The unenhanced hyperdense finding within the compressed left internal jugular vein is also noted (arrow).

**Figure 4.** T1-weighted fat saturated post contrast enhanced MRI coronal image of the neck. No enhancement of perivascular and intravascular enhancing soft tissue mass extending into the left lower neck and mass which also completely obscures normal signal within the subclavian vein (arrowhead) suggestive of a benign lipoma.

**Figure 5.** Intravascular photograph of the anterior aspect of the left internal jugular vein separated by vessel loops from the perivascular component (asterisk) of the lipoma. This is continuous with the intravascular component, which is surrounded by the dilated venous wall (arrow).

**Figure 6.** A photograph of the surgical specimen usually reveals an attenuation of the venous wall by the tumor. There is some debate as to the origin of these tumors but component (arrow) is covered by the tunica intima.

**Figure 7.** Low magnification view of the H&E stain of the surgical specimen. The venous wall is attenuated by the lipoma. A thin layer of tunica intima (arrow) is seen. There is no evidence of tunica media.

**Figure 8.** High magnification view of the H&E stain of the surgical specimen. The adipose tissue is covered by the tunica intima (arrow) which separates it from the lumen (asterisk) of the vessel.

**PATHOLOGY**